Impact of obstructive sleep apnea diagnosis on healthcare resource utilization in patients with obstructive lung disease

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Study Finalised

Administrative details

EU PAS number

EUPAS19984

Study ID

31027

DARWIN EU® study

No

Study countries

☐ United Kingdom

Study description

A historical observational database study UK using primary care data to evaluate the frequency of continuous positive airway pressure (CPAP) therapy prescribing in patients with sleep-related breathing disorder (SBD, including obstructive sleep apnoea). The study will assess SBD patient characteristics (clinical and demographic) in those in whom CPAP treatment is recorded/coded (vs not recorded). Finally the study will evaluate the impact of (i) CPAP and (ii) a SBD diagnosis (as a proxy for CPAP treatment) and (iii) an OSA diagnosis on clinical outcomes and healthcare resource utilization in a representative SBD population of patients in the United Kingdom with comorbid obstructive lung disease.

Study status

Finalised

Research institutions and networks

Networks

Respiratory Effectiveness Group (REG)

- [ ] Belgium
- [ ] Denmark
- [ ] France
- [ ] Germany
- [ ] Greece
- [ ] Hungary
- [ ] Italy
- [ ] Netherlands

☐ Spain

☐ Sweden

☐ United Kingdom

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Network | ENCePP partner

Contact details

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Primary lead investigator

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Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 16/12/2016

Actual: 16/12/2016

Study start date

Planned: 01/12/2017

Actual: 01/06/2018

Data analysis start date
Planned: 01/02/2018

Date of final study report
Planned: 30/09/2018

Actual: 30/09/2018

Sources of funding

- Other

More details on funding

Respiratory Effectiveness Group

Study protocol

OSA and Comorbid OLD_Pilot Study Protocol_REG.pdf(2.01 MB)

Regulatory

Was the study required by a regulatory body?

No

Is the study required by a Risk Management Plan (RMP)?

Not applicable

Methodological aspects

Study type

Study type list

Study topic:

Disease /health condition

Other

Study topic, other:

Healthcare resource utilization

Study type:

Non-interventional study

Scope of the study:

Disease epidemiology

Healthcare resource utilisation

Data collection methods:

Secondary use of data

Main study objective:

To evaluate the impact of (i) CPAP and (ii) a SBD diagnosis and (iii) an OSA diagnosis on clinical outcomes and healthcare resource utilization in a representative SBD population of patients in the United Kingdom with comorbid obstructive lung disease.

Study Design

Non-interventional study design

Cohort

Cross-sectional

Study drug and medical condition

Medical condition to be studied

Sleep apnoea syndrome

Population studied

Short description of the study population

Patients with sleep-related breathing disorder (SBD, including obstructive sleep apnoea).

Patients with following criteria were included:

1. ≥18 years of age
2. A physician diagnosis of SDB, defined as ≥1 SBD diagnostic codes

Additional criteria for Aim 3

- Three years of continuous data: ≥1 year prior to the first recorded SDB code ("index date") and ≥2 years immediately after index date.
- An active Obstructive Lung Disease (OLD):

o Asthma subpopulation: a Quality Outcomes Framework (QoF) Read code for asthma ever prior to index date, ≥2 asthma prescriptions in each of the baseline years; no COPD Read code in the 4-year study period

o COPD subpopulation: a QoF Read code for COPD prior to index date, ≥2 COPD prescriptions in each of the baseline years; no asthma Read code in the 4-year study period

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Age groups

Adults (18 to < 46 years)

Adults (46 to < 65 years)

Adults (65 to < 75 years)

Adults (75 to < 85 years)

Adults (85 years and over)

Special population of interest

Other

Special population of interest, other

Sleep-related Breathing Disorders patients

Estimated number of subjects

8500

Study design details

Outcomes

Acute respiratory event ratei) Hospital admissionsii)A&E attendanceiii)Acute course of oral steriodsiv) Antibiotic prescriptions, Overall healthcare cost-Total: Encounter + Drug related.

Data analysis plan

Outcome comparison between pre- and post index date periods, for:i) All Active Patientsii) All Active OLD sub-populations (asthma, COPD, asthma & COPD)

Data management

Data sources

Data source(s)

Optimum Patient Care Research Database

Data sources (types)

Electronic healthcare records (EHR)

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

Unknown